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# TAXATION OF CONVENTIONAL AND ALTERNATIVE TRANSPORTATION FUELS IN CANADA

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## Préface

Le but de ce rapport est de fournir un portrait détaillé des taxes qui sont applicables aux biens de la consommation énergétique, ces derniers pouvant être utilisés directement ou indirectement comme carburant servant au transport. Le rapport fourni de l'information sur les royautés et taxes appliquées au niveau de la production par les gouvernements fédéral et provincial. Les impôts provinciaux et fédéraux applicables à l'activité commerciale à un ou plusieurs stages de la production y sont aussi décrits. Les taxes de vente fédérales, taxes d'accises et taxes provinciales sur le carburant à moteur, toutes appliquées soit lors de la transformation, de la distribution ou de la vente au détail, sont définies pour les carburants conventionnels et de remplacement. Le rapport conclu avec un examen des taxes fédérales et provinciales actuelles sur les carburants servant au transport. D'après ce rapport, les carburants de remplacement sont généralement avantagés dans l'actuelle structure de taxation. Une exception, peut-être: les mélanges oxygénés.

## Abstract

The purpose of this report is to provide a detailed picture of the taxes that are applicable to energy commodities which might be used directly or indirectly as transportation fuels. The report provides information on royalty levies and production taxes applied at the production level by provincial and federal governments. Provincial and federal income taxes applicable to business activity in one or more stages of production are also described. Federal sales taxes, excise taxes and provincial motor fuel taxes applied at the processing, distribution or retail levels, are provided for conventional and alternative fuels. The report concludes with an examination of the federal and provincial tax status of transportation fuels. Based on this report alternative fuels are generally well served under the existing tax structures. The exception may be oxygenated blends.

This report is not an official
Transportation Energy Division and
purposes. Taxation rates contained
best of our knowledge at the time o
change frequently and readers are a
tax authorities to receive the most

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# 1 INTRODUCTION

The purpose of this report, is to provide a detailed picture of the taxes that are applicable to energy commodities which might be used directly or indirectly as transportation fuels. This report provides basic information on royalty levies and production taxes as they are applied by the provincial and federal governments. These charges are applied at the production level. Provincial and federal income taxes which apply to business activity covering one or more stages of production are also described. In addition specifics are detailed on federal sales and excise taxes and provincial motive fuel taxes for both conventional and alternative fuels.

## 2 TAXATION

### 2.1 Definition of Taxation

In this report, "taxation" is defined as a monetary charge imposed by government authorities on corporations, individuals, or property for revenue collection purposes. This report deals with both federal and provincial charges.

### 2.2 Jurisdiction

The Constitution Act, 1867, formerly called the British North American Act, empowers the Parliament of Canada to raise money "by any mode or system of taxation", but restricts the provinces to "direct taxation" within each province, except for natural resource levies. The federal government thus uses both direct and indirect taxation across Canada while provinces are limited to direct taxes.

"Direct taxes" under Canadian law are those which are a direct charge on a person or organization paying the taxes - income tax is the best example. "Indirect taxes" are those which are imposed on a person or an organization in the expectation that their cost will be recovered from other people; examples are federal customs and excise duties and the federal sales tax.(1)

Within the above general framework the federal government imposes a number of tax measures that will be considered in this report. These taxes are:

1. Petroleum and Gas Revenue Tax (PGRT)
2. Federal Excise Tax
3. Federal Sales Tax
4. Federal Income Tax

At the same time the provincial taxes to be considered are:

1. Provincial Resource Royalties
2. Provincial Fuel Taxes
3. Provincial Income Taxes

## 2.3 Stage of Revenue Collection

Federal and provincial revenue collection can take place on business activities covering one or more of the four levels of production from the primary resource production stage to the retail stage. Corporate income taxes will often apply to taxable income generated by business activities over one or more production levels, whereas the other tax measures normally apply to only one of the following stages.

### 2.3.1 Primary Resource Production Level

Taxes on primary resources are collected by the federal government in the form of the PGRT and by the provinces in the form of provincial resource royalties. These apply basically to crude oil and gas.

### 2.3.2 Processing Level

The federal government applies the federal sales tax at this level. According to the Excise Tax Act Part V SS 27.(1) "There shall be imposed, levied and collected a ... sales tax ... on the sale price of all goods produced or manufactured in Canada (1) payable ... by the producer or manufacturer at the time when the goods are delivered to the purchaser or at the time when the property in goods passes, whichever is earlier ..."

Petroleum products and propane are affected by this tax.

2.3.3 Retail Level

The federal government imposes its excise taxes at this level. According to the Excise Tax Act Part III SS 21(1) "Whenever goods ... are ... taken out of warehouse or manufactured or produced in Canada and delivered to a purchaser thereof, there shall be imposed, levied and collected ... an excise tax ..."

This tax applies to petroleum products but not to propane or natural gas.

2.3.4 Retail Level

Taxes at the consumption level are collected by the Territorial or provincial governments.

These taxes are, in most cases, ad valorem taxes based on the average retail price of the fuel. Most of the taxes at this level are levied by provincial governments and these taxes can apply to all transportation energy commodities.

2.3.5 Other Charges

The recent history of energy federal taxation included several special charges levied for purposes other than strict revenue generation. The Petroleum Compensation Charge (PCC) was levied

on domestic oil to finance the purhcase of higher cost imported oil. The Canadian ownership special charge (COSC) was a series of charges levied to provide funds to facilitate the Canadian purchase or development of domestic resources. These funds were used to finance the purchase by Petro-Canada of the Canadian assets of B.P. and Petrofina.

A charge was also levied on the export of Canadian crude oil, with the proceeds shared equally with the producing provinces. Finally, a negative tax (subsidy) was levied (paid) to offset some gas transmission costs under a measure called the Transportation Assistance Program TAP I. These special charges have been removed with the deregulation of the oil and gas industry. Only a version of TAP called TAP II remains. TAP II is essentially the same mechanism as was TAP I but the program funding comes from Alberta gas producers rather than the federal government.

## 3 BASIC TAXATION AND ROYALTIES

This section describes in detail the various taxes levied by the federal and provincial governments of Canada.

### 3.1 Income Taxes

Federal and provincial corporate income taxes are paid by the energy industry on business activities ranging from exploration to final product sale. The energy industry is operated by corporations and/or individuals for several purposes, but the primary purpose is to generate revenue

which is the basis of calculating income taxes. Although income is not specifically defined in the income tax act and is subject to various definitional interpretations, it is for tax purposes affected by the accounting concept of profit. The determination of profit requires the deduction from gross income of those expenses incurred in obtaining it.

Governments have, over the years, developed a significant range of "expense items" which can be deducted from gross income to determine the portion of taxable income. The development of a list of acceptable expense items, including cash deductions, write-offs, deferred taxes and unusual losses and gains has been shaped by government concerns for revenues, industry performance and well being, and the level of general economic activity. As these priorities change, the list and definition of acceptable deductions to determine net income are amended.

Once taxable income has been defined, the corporate income tax rates are applied to determine taxes due. For tax purposes there are two classes of corporations. Public corporations, when their shares are listed on a Canadian stock exchange, pay the full federal rate of 46 percent* of taxable profit. Corporations engaged in manufacturing and processing activities, pay only 40 percent*. Privately held Canadian-controlled corporations pay 25 percent on profits up to $200,000. On profits from processing and manufacturing activities, the tax rate is 20 percent. Full tax rates apply to profits over $200,000. Canadian-Controlled private corporations must pay a tax of 12.5 percent

* When these rates are applicable, an additional 5 percent surtax is in effect for the period July 1, 1985 to December 31, 1986.

when dividends are distributed from income taxed at the low rates. Under the February 1986 budget this tax will be repealed, effective January 1, 1987.

The federal government allows a rebate of 10 percentage points of taxable profits to provide room for provincial corporation taxes collected by Ottawa for all provinces except Alberta, Ontario and Quebec. These three province impose comparable taxes on virtually the same basis. Applicable provincial and territorial tax rates are listed below.(1)

| Province | Tax Rate(s) (percentage)* |
|---|---|
| Newfoundland | 10 and 16% |
| Prince Edward Island | 10% |
| Nova Scotia | 10 and 15% |
| New Brunswick | 5 to 15% |
| Quebec | 3 to 13% |
| Ontario** | 0 to 15.5% |
| Manitoba | 10 and 16% |
| Saskatchewan | 0 to 16% |
| Alberta | 0 to 11% |
| British Columbia | 8 and 16% |
| Northwest Territories | 10% |
| Yukon | 2.5 to 10% |

SOURCE: Canadian Tax Foundation

* Where two rates are quoted, the first rate applies to small businesses; the second to large businesses. Some provinces show a range of rates that are determined by the size of corporation and the type of profit. Rates are shown as of January 1, 1986.

** For large Ontario businesses engaged in manufacturing or processing, a three year tax holiday is available for the first three years of operation after incorporation.

The Canadian Petroleum Industry as defined by the Petroleum Monitoring Agency, operating within the general tax framework outlined above, received $33.5 billion in total revenues for the first six months of 1985, up $1.4 billion from the first half of 1984. Cash deductions for the 1985 period were $27.9 billion, up $0.7 billion over 1984 (leaving internal cash flow at $5.6 billion). At the same time write-offs were $2.7 billion, deferred taxes $0.9 billion, and unusual losses were $0.6 billion, leaving a net income of $1.6 billion, down $0.5 billion from the first half of 1984. For this period net income represented a return of 7.5 percent of shareholders equity or 5.2 percent of capital employed.(2)

For the year 1984 the industry's taxable income was $7.4 billion, on which taxes payable to federal and provincial governments were $2.7 billion. Taxes payable represent about 36.5 percent of taxable income.

## 3.2 Primary Resources

### 3.2.1 Oil and Gas

#### Federal Level

At this level the federal government imposes the Petroleum and Gas Revenue Tax (PGRT) which is a levy on revenue from the production of oil and gas in Canada and on royalties and rentals from such production. The PGRT is applied to basic revenues minus operating costs. The PGRT is to

be phased out by 1989, but the statutory rates until the end of the phase out are the following: 1986-13.33 percent, 1987-10.66 percent and 1988- 8 percent. These rates are reduced by a 25 percent resource allowance deduction which makes the effective PGRT rates equal to: 1986-10 percent, 1987- 8 percent, and 1988- 6 percent. These rates apply to conventional oil and gas production.

For synthetic oil production a lower rate of PGRT is applicable, which is characterized by lower rates and a higher 50 percent resource allowance deduction. The stated rates are: 1986-12 percent, 1937- 8 percent and 1988- 4 percent. The effective rates are 6, 4 and 2 percent for 1986, 1987 and 1988 respectively.(3)

The regulatory framework of Canada's energy development in frontier areas is outlined in the proposed, Canada Petroleum Resources Act, which will replace the Canada Oil and Gas Act (COGA). Under the proposed Act the 25 percent crown share in all interests held in the frontier lands will be discontinued. The frontier regions are defined as those regions where the responsibility for establishing royalties has not been transferred to a province. The 50 percent Canadian ownership rate instituted under COGA will be retained but with some qualifications. Petro Canada will receive the same company treatment accorded to other energy companies.

In the area of fiscal incentives the royalty system or regime is to be altered. The 10 percent Basic Royalty and Progressive Incremental Royalty will be eliminated. They will be replaced with a royalty that,

prior to a specially defined project "payout", commences at a rate of 1 percent of gross revenues, rising to 5 percent in increments of 1 percent every 18 months. Following "payout" of the initial investment, including a fair return on capital invested, the royalty will be 30 percent of net cash flow. This system is similar to the royalty regime imposed by Alberta on high cost oil sands and enhanced oil recovery projects.

In addition to the proposed royalty structure changes, the government will implement a 25 percent Investment Royalty Credit which will be appliable to eligible frontier exploration with costs equal to, or below, $5 million for new exploration wells. The credit will be applied against royalties otherwise payable within the region.

The royalty credit will provide conventional onshore frontier exploration with incentives comparable to those available for similar activity in the provinces.

Finally, the Petroleum Incentive Payments (PIPS) was eliminated by the Western Accord as of March 31, 1986 but there was a "grandfathering" for exploration commitments on the frontier until the end of 1987. Under the grandfathering provisions a small number of wells will continue to receive the payments.(4)

Provincial Level

The provincial governments apply resource royalty charges at the primary resource level. Under the Constitution Act of 1867, the

provinces of Canada were granted the right to impose natural resource levies. These levies are applied to the oil and gas industry in the form of royalties, rentals and land charges. The provinces use these levy mechanisms to capture some of the economic rent which accrues from the production of their finite hydrocarbon resources, and to affect the level of activity in their oil and gas industry.

Since provincial governments control the rights to explore for oil and gas in many of the remaining favourable geological areas, they are able to affect the level of exploration in their jurisdiction by the sale of these rights. Exploration and development rights on specified land tracts are made available to energy companies on a highest bid basis. Companies bidding on these tracts base their bids on the expected net value of excess profits obtainable from any potential hydrocarbon finds. These bids are therefore significantly affected by the existing tax and royalty structure.

The well head price for oil and gas is used as a base point in the calculation of provincial royalties. Normally it is based on an average of prices posted by a number of major companies for a specified recent period of time. To this well head price each producing province applies a royalty rate. As an example, the January 1986 average Alberta gross royalty rate for conventional oil production was 33.8 percent. When applied to the average wellhead price including royalty of $37.50 per barrel, the royalty was valued at $12.68 per barrel in January 1986, or 8¢ per litre.(5)

For synthetic oil or for conventional oil drilled in new areas or drilled after a specified date, different (lower) royalty rates apply.

Historically, royalty levies have been far more important than land charges and rentals in Alberta and Saskatchewan. In B.C. the land charges and rentals are more significant. Over the period 1980 to 1984, Alberta resource royalties accounted for 40 percent of per barrel production costs, while land sales and rentals accounted for 6.7 percent. In Saskatchewan royalties were 37.2 percent, while land sales and rentals were 7.7 percent of per barrel product costs. The picture for B.C. was somewhat different. Resources royalties were 14 percent and land sales and rentals were 16 percent of oil production costs.(6)

The above mentioned royalty rates are average. Actual royalty rates differ significantly according to when and where the oil or gas was found and when production commenced. The following are forecasts of average royalty rates in percent for 1986.

1986 PROJECTED ROYALTIES RATES
(in percent)

| Province | Alberta | Saskatchewan | British Columbia |
|---|---|---|---|
| Old oil | 31 | 37 | 25 |
| New oil | 27 | 25 | 22 |
| Old gas | 28 | 14 | 23 |
| New gas | 22 | NA | 15 |

SOURCE: EMR

## 3.3 Processing

Taxes are applied by the government at the processing level on certain products as they leave the manufacturing or refining sectors.

### 3.3.1 Oil and Petroleum Products

A federal sales tax of 12 percent effective April 1, 1986 is levied on the average selling price of manufacturers or producers. This tax on all petroleum products is levied before any other charges. For all fuels except aviation and turbo, the federal sales tax is a fixed amount per litre. Sales tax on aviation and turbo continues to be calculated on an ad valorem basis. Gasoline and diesel tax rates are subject to quarterly adjustments based on changes in a specified price index. Current per litre sales tax rates are: 3.98¢ on regular leaded gasoline, 4.36¢ on regular unleaded gasoline, 4.48¢ on premium unleaded gasoline and 3.66¢ on diesel fuel. Aviation gasoline and turbo fuel carry per litre rates of 4.8¢ and 4.4¢ respectively. The majority of Canada's bilateral air agreements preclude the levying of fuel taxes on fuel used for international flights. Canada applies this tax treatment to all fuel used on international flights.

### 3.3.2 Natural Gas

Natural gas is no longer subject to tax at this level with the removal of both the Natural Gas and Gas Liquids Tax (NGGLT) and the Canadian Ownership Special Charge (COSC).

Propane

Under the Excise Tax Act all motor vehicle/fuel propane sales should be subject to the full federal sales tax burden of 12 percent. Under part VI SS 5 of the Excise Tax Act which exempts propane sales "for lighting and heating' from federal sales tax appropriate propane buyers should file for a refund equal to any federal sales taxes paid. A full tax payment and rebate system would be an unwieldy and expensive process. As a result, the propane industry and Revenue Canada have agreed to a levy system, prorated according to estimated transportation use of propane.

According to Revenue Canada, 17 percent of domestic propane sales are deemed to be sold for use in motor vehicles in Canada. Revenue Canada determines the propane tax bill due from the industry by applying the federal sales tax rate of 12 percent to 17 percent of total propane sales. The propane industry recovers its federal sales tax costs from all propane sales (including non-motor vehicle fuel sales) at a rate of about 1.87 percent. For calculation purposes, domestic propane sales include domestic sales of imported propane and exclude direct exports by manufacturers and sales to licenced wholesalers. (Propane purchased for use as a petrochemical feedstock would probably not be subject to tax). NGGLT and COSC are no longer levied on propane.

## 3.4 Distribution Level

The federal excise tax on petroleum products is applicable at this level. It is levied at the point where the goods or products are delivered from the manufacturer or producer to the purchaser.

The federal excise tax is imposed on all grades of gasoline at a rate of 3.5 cents per litre and at a 2 cent per litre rate on diesel fuel. The per litre rates applicable to aviation gasoline and turbo fuel are 3.5 cents and 2 cents respectively. These rates are slated to increase by one cent per litre on January 1st, 1987. Natural gas and propane are not affected by this tax.

There is also a special rebate provision for selected fuel users. A 3 cent per litre rebate is available until January 1, 1988 on gasoline and diesel fuel for off-highway use in commercial activities by primary producer. This rebate has an annual value of about $120 million per year.

## 3.5 Retail Consumption Level

Taxes on retail sales are levied by both the federal and provincial governments. Federal levies apply to the territories while provincial taxes apply within their own jurisdiction.

### 3.5.1 Oil (Petroleum Products)

#### A) Provincial Sales or Road Tax

This tax is levied at the consumption level and is usually levied on an ad valorem basis. The rates vary according to province and product.

Newfoundland

Gasoline: Ad valorem rate based on 22% of the combined average of self-service and full service retail price (excluding provincial tax) of regular leaded and regular unleaded gasoline. Currently the road tax is 11.7¢ per litre for the three grades of gasoline.

Oxygenated Gasoline Blends: Oxygenated blend components fall into the gasoline definition and would, therefore, be taxed as gasoline.

Diesel Fuel: Ad valorem rate based on 26% of the average full services retail price (excluding provincial tax) of diesel fuel. Currently road tax for diesel fuel is 13.9¢ per litre.

Aviation Fuel: Fixed rate of 0.7¢ per litre on the selling price of all aviation fuel.

Marine: The tax rate is set at 1.0¢ per litre.

Prince Edward Island

Gasoline: Ad valorem rate based on 20% of the combined average of full service and self-service retail price (excluding provincial tax) of three grades of gasoline. The existing road tax for the 3 grades of gasoline is 10.3¢ per litre.

Oxygenated Gasoline Blends: Oxygenated blend components fall into the gasoline definition and would, therefore, be taxed as gasoline.

Diesel Fuel: Ad valorem rate based on 29% of the average full service and self-service retail price (excluding provincial tax) of diesel fuel. The current road tax for diesel fuel is 11.7¢ per litre.

Aviation fuels: Fixed rate of 0.7¢ per litre on the selling price of aviation fuel.

Nova Scotia

Gasoline: Ad valorem rate based on 20% of the combined average full service retail price (excluding provincial tax) of the three grades of gasoline. The current tax for the 3 grades of gasoline is 10.1¢ per litre.

Oxygenated Gasoline Blends: Oxygenated blend components fall into the gasoline definition and would, therefore, be taxed as gasoline.

Diesel Fuel: Ad valorem rate based on 21% of the average full service retail price (excluding provincial tax) diesel fuel. The current road tax for diesel fuel is 10.0¢ per litre.

Aviation fuel: Ad valorem rate based on 2% of the average selling price of aviation fuel. The current tax for aviation fuel avgas/turbo is 1.0¢ per litre.

Marine: Tax rate is set at 1.2¢ per litre.*

* Marine diesel delivered through tanker truck or pipeline on Cape Breton Island or to the town of Malgrave is exempt from tax.

New-Brunswick

Gasoline: Ad valorem rate based on 20% of the average full service and self-service retail price (excluding provincial tax) of each grade of gasoline. The current road tax for regular leaded gasoline is 9.8¢ per litre, for unleaded gasoline it is 10.2¢ per litre, and for premium gasoline it is 10.5¢ per litre.

Oxygenated Gasoline Blends: Oxygenated blend components fall into the gasoline definition and would, therefore, be taxed as gasoline.

Diesel Fuel: Ad valorem rate based on 23% of the average full service and self-service retail price (excluding provincial tax) of diesel fuel. The current road tax for diesel fuel is 10.0¢ per litre.

Aviation Fuel: Ad valorem rate based on 3% of the average selling price of aviation fuel. The current tax for aviation fuel avgas/turbo is 1.9¢ per litre.

Marine: There is currently no tax applicable to marine fuels.

Quebec

Gasoline: Ad valorem rate based on 30% (effective as of November 16, 1983) of the average full service and self service retail price (excluding provincial tax) of each grade of gasoline.

The current road tax is 13.65¢ per litre for regular leaded gasoline, 14.4¢ per litre for unleaded gasoline, and 14.7¢ per litre for premium gasoline. This tax is reduced on a sliding scale basis according to the proximity to any Quebec border. It is reduced by 33% if the location is within 5 km of the Quebec border, by 22.36% within 6 and 10 km, by 12.24% within 11 and 15 km, and by 1.27% within 16 and 20 km. The 33% rate reduction also applies to remote areas. Areas outside the eastern townships and Quebec's five largest cities are considered remote.

Oxygenated Gasoline Blends: Oxygenated blend components fall into the gasoline definition and would, therefore, be taxed as gasoline.

Diesel Fuel: Ad valorem rate based on 30% (effective as of November 16, 1983) of the average full service and self-service retail price (excluding provincial tax) of diesel fuel. The current road tax is 12.45¢ per litre for diesel fuel. This tax is reduced on a sliding scale basis according to the proximity to the Quebec border. The percentage reduction is the same as for gasoline.

Aviation Fuel: Ad valorem rate based on 8% of the selling price of aviation fuel.

Marine: There are currently no taxes applicable to marine fuel.

Ontario

Gasoline: Ad valorem based on 20% of the median of full service and self-service retail price (excluding provincial tax) of each

grade of gasoline. The current road tax is 8.3¢ per litre for regular leaded gasoline, 8.3¢ per litre for regular unleaded gasoline, and 8.3 per litre for premium unleaded gasoline.

Oxygenated Gasoline Blends: The province of Ontario gives motive fuel tax exemptions for specified oxygenate components. Item 1(d) iv of Ontario's Gasoline Tax Act specifically excludes ethyl alcohol, methyl alcohol, isopropanol and tertiary butyl alcohol from the gasoline definition. Therefore, gasoline containing these specified oxygenated components receive a tax reduction equal to the proportion of oxygenates in the blend.

Diesel Fuel: Ad valorem rate based on 27% of the average full service and self-service retail price (excluding provincial tax) of diesel fuel. The current road tax is 9.9¢ per litre for diesel fuel.

Aviation Fuel: The tax on aviation fuel and avgas/turbo is pegged at 19% of the tax applicable to diesel fuel. The current tax is 1.88¢ per litre for aviation fuel avgas/ turbo.

Manitoba

Gasoline: The current road tax is 8.9¢ per litre of regular and premium leaded gasolines, 8.0¢ per litre for regular and premium unleaded gasoline.

Oxygenated Gasoline Blends: Under the "Gasoline Tax Act" of Manitoba, probable oxygenated blend components, with the exception of Isobutanol, would be included in the definition of gasoline and would in the absence of any change to the Act, be taxed as any other gasoline component. Ethanol used in the production of gasohol does receive special tax treatment in Manitoba.

Manitoba currently taxes Gasohol, an oxygenate blend that contains at least 10 percent denatured ethyl alcohol manufactured from biomass in Canada, at a rate 2.5¢ per litre below the regular gasoline tax rate. This works out to a 25¢ per litre tax concession on the ethanol portion of the blend.

Diesel Fuel: A fixed rate of 9.2¢ per litre is applicable to diesel fuel.

Aviation Fuel: A fixed rate of 4.8¢ per litre is applicable to all types of aviation fuel.

Saskatchewan

Gasoline: No road tax.

Oxygenated Gasoline Blends: Since there are no road taxes on motor vehicle fuels, oxygenated blend components used as vehicle fuels are unlikely to be taxed.

Diesel Fuel: No road tax.

Aviation Fuel: Tax on aviation fuel applies to commercial airlines other than commercial air services that operate mainly in Saskatchewan. Other commercial airlines must pay a fixed rate of 2.9¢ per litre.

Alberta

Gasoline: No road tax.

Oxygenated Gasoline Blends: Since there are no road taxes on motor vehicle fuels, oxygenated blend components used as vehicle fuels are unlikely to be taxed.

Diesel Fuel: No road tax.

Aviation Fuel: A fixed rate of 0.7¢ per litre is applicable for planes over 34,000 kg.

British Columbia

Gasoline: Ad valorem rate based on 20% of the average full service and self service retail price (excluding provincial tax) of regular leaded gasoline. The current road tax is 8.64¢ per litre for all three grades of gasoline.

Oxygenated Gasoline Blends: Oxygenated blend components fall into the gasoline definition and therefore are subject to the same taxes as gasoline.

Diesel Fuel: Ad valorem rate based on 20% of the average full service and self service retail price (excluding provincial tax) of diesel fuel. The current road tax is 9.08¢ per litre for diesel fuel.

There is an additional transit tax of .95¢ per litre the in Vancouver area which is applicable to clear gasoline and diesel sales only.

Aviation Fuel: Ad valorem rate is indirectly arrived at using the rate of tax per litre of gasoline less a fixed differential. The current tax for all type of aviation fuel is 3.02¢ per litre.

Marine: Marine marked bunker is taxed at 1.44¢ per litre while all other marine is taxed at 3.02¢ per litre.

Yukon

Gasoline: A fixed rate of 4.2¢ per litre applies to the three grades of gasoline.

Diesel Fuel: A fixed rate of 5.2¢ per litre is applied to diesel fuel.

Oxygenated Gasoline Blends: Under the "Fuel Oil Tax Ordinance" of the Yukon, oxygenated blend components would fall into the category of "fuel oil" and would be taxed accordingly. Gasoline is included in the fuel oil definition and oxygenated blend components would probably have the same tax treatment as gasoline.

Aviation Fuel: A fixed rate of 0.7¢ per litre is applied to all types of aviation fuel.

Northwest Territories

Gasoline: Ad valorem rate based on 15% of the combined average self service and full service retail price (excluding the tax imposed by The Petroleum Products Tax Act) of regular leaded gasoline. The current road tax is 8.4¢ per litre for all three grades of gasoline.

Oxygenated Gasoline Blends: Under the "Fuel Oil Tax Ordinance" of the Yukon, oxygenated blend components would fall into the category of "fuel oil" and would be taxed accordingly. Gasoline is included in the fuel oil definition and oxygenated blend components would have the same tax treatment as gasoline.

Diesel Fuel: Ad valorem rate based on 85% of the tax on regular leaded gasoline. The current road tax is 7.1¢ per litre for diesel fuel.

Aviation Fuel: The current tax for all type of aviation fuel is 1.0¢.

3.5.2 Gas Products (natural gas and liquid gas products)

Included under this heading are natural gas* (methane) and propane.

Natural Gas

(A) Provincial Road Tax: The provincial road tax for natural gas is either non-applicable (since the product is not on the market) or not taxed (so that it becomes an incentive to purchase that commodity). Therefore, there is no road tax on natural gas in Canada.

Newfoundland: not applicable
Prince Edward Island: not applicable
Nova Scotia: not applicable
New Brunswick: not applicable
Quebec: no sales tax
Ontario: no sales tax
Manitoba: not applicable
Saskatchewan: no sales tax
Alberta: no sales tax
British Columbia: no sales tax
Yukon: not-applicable
Northwest Territories: not applicable

* Natural gas motor vehicle fuel is used in a compressed state and is known as compressed natural gas or CNG. This fuel is used in vehicles called natural gas vehicles designated by the acronym NGV. This paper uses only the term CNG.

Propane

(A) Provincial sales or road tax: This charge is treated differently in each province. It is either a fixed rate, an ad valorem rate, or currently removed (i.e. set to zero).

**Newfoundland:** Ad valorem rate based on 22% of the combined average of full service retail price (excluding provincial tax) of regular leaded and regular unleaded gasoline. Thus the road tax for propane is 11.7¢ per litre.

**Prince Edward Island:** Ad valorem rate based on 20% of the combined average of full service and self service retail price (excluding provincial tax) of the three grades of gasoline. Thus the road tax for propane is 10.3¢ per litre.

**Nova Scotia:** Ad valorem rate based on 20% of the combined average of full service retail price (excluding provincial tax) of the three grades of gasoline. Thus the road tax for propane is 10.1¢ per litre.

**New Brunswick:** Ad valorem rate based on 13% of the average retail price of propane. Thus the road tax for propane is 4.8¢ per litre.

**Quebec:** Ad valorem rate based on 30% of the average retail price of propane. Thus the road tax for propane is 8.25¢ per litre.

**Ontario:** No tax on propane.

**Manitoba:** A fixed rate of 4.8¢ per litre is applicable in the case of propane.

**Saskatchewan:** No road tax.

**Alberta:** No road tax.

**British Columbia:** No road tax on propane.

**Yukon:** No road tax on propane.

**Northwest Territories:** No road tax on propane.

## 3.6 Special Charges

These are the charges levied for redistribution purposes, rather than for revenue generation.

### 3.6.1 Natural Gas

Federal special charges levied for redistribution purposes have ended with deregulation. However, some small programs remain which are administered by the federal government but paid for by Alberta with funds from its gas producers. In the September 1981 Canada-Alberta Agreement on energy pricing and taxation, Alberta undertook to provide Market Development Incentive Payments (MDIP) to the Government of Canada to encourage the expansion of markets for Alberta-produced natural gas in provinces east of Alberta.

There are several programs still operating which are partially funded through MDIP. EMR offers the Natural Gas Vehicle Conversion (NGVC) and the Natural Gas Fueling Station (NGFS) programs to encourage the conversion of motor vehicles to natural gas use and the development of a natural gas fueling station infrastructure. As well, the Gas Marketing Assistance Program (GMAT) promotes the expansion of new natural gas markets in Quebec and the Maritime, using MDIP funds. The Industrial Capital Assistance Program (ICAP) to promote increased gas use by industrial users and the Transportation Assistance Program (TAP II) are the other programs funded by MDIP.

The TAP II was a late addition to MDIP funded programs as it was part of the agreement to decontrol natural gas prices commencing November 1, 1985. It was designed to cover all of a scheduled TransCanada Pipeline (TCPL) rate increase for gas movement after October 31, 1985. This funding only covers movement of Alberta gas that is destined for domestic gas markets. Non-Alberta gas and export sales are not covered under this program. Current value of the TAP II is just under 12 cents per gigajoule (GJ). The TAP II is slated for termination on October 31, 1986. After that date it is hoped market pricing will allow buyers and sellers of gas to decide how much of the toll burden will be covered by each participant.

## 4 TAX STATUS OF TRANSPORTATION FUELS

Taxation of transportation fuels has become a major source of federal and provincial government revenue. Combined federal sales and

excise taxes on gasoline alone earn over $2 billion in annual revenues and provincial motor fuel taxes generate even larger amounts. Deficit concerns across the country will make governments reluctant to consider tax changes which would reduce revenues.

In recent years, however, some governments have developed tax treatment which discriminates either for/or against specified fuels. The federal government currently collects sales and excise taxes on petroleum products, but within the petroleum product group collects less onerous excise taxes on diesel and aviation turbo fuels. At the same time, there are no federal excise taxes on propane or natural gas and a much reduced effective sales tax on propane. Oxygenated blends are taxed at the gasoline rates.

As noted above, Revenue Canada and the Propane Gas Association reached a 2 year agreement commencing April 1st, 1984 which deems that 17 percent of total propane sales are for motor vehicle fuel. To determine the amount of sales tax due from the propane sellers, Revenue Canada applies the 12 percent federal sales tax rate to 17 percent of the industry's sales. Revenue Canada has made no move to review the continuing validity of the 17 percent figure, therefore, it will probably remain in effect at least until April 1st, 1987.

According to the Excise Tax Act schedule III part VI subsection 7, natural gas has an unconditional exemption from federal tax at this level. Within the last couple of years the tax treatment accorded to natural gas under the excise tax act was challenged in a Propane Gas

Association submission to the Minister of Finance. In response, the Minister decided that no changes in the tax treatment were in order. Moreover, Revenue Canada indicates that there is currently no change is being considered in this area.

Since Canadian crude prices are now determined to a large extent by competitive conditions in international markets, the distribution of revenue has a negligible impact on crude prices. Therefore, royalties collected by various governments do not necessarily affect the pump price of fuel. At present the federal sales and excise taxes are the ones which affect pump prices. Federal taxes on propane and CNG alternatives are much lower than those on conventional fuels. At the same time, federal taxation of oxygenated blend components (by treating them as regular gasoline) is slightly more onorous on an energy basis than is the taxation of regular gasoline.

Provincial Tax Issues

The direct taxation of motor fuels such as gasoline and diesel varies widely between provinces. The major oil producing provinces of Saskatchewan and Alberta have levied no taxes on motor fuels, whereas some of the Eastern Provinces have levied taxes at rates as high as 30 percent ad valorem (Quebec). Likewise, the taxation of alternative fuels such as propane, natural gas, and methanol varies to a great degree and is often dependent on whether the product in question is produced within that province. For instance, propane is not taxed in British Columbia,

Saskatchewan and Alberta. In Nova Scotia where the only propane is produced at the refinery level from imported crude, the tax is identical to gasoline even though the energy content of a litre of propane is lower than that of gasoline.(7)

The Atlantic provinces, with the exception of New Brunswick, (N.B.) have a similar approach to taxation of motor vehicle fuels. Traditional petroleum products are taxed at similar levels and are an important source of provincial revenue. Propane is taxed at the per litre rate for gasoline; indications are that if CNG becomes an available motor fuel, a tax rate similar to that for gasoline would be collected. In the (N.B.) case propane is taxed at about half of the gasoline rate. New Brunswick does not define CNG as a gasoline and natural gas is specifically excluded as a motor fuel indicating the possibility of favourable CNG tax treatment in this province

As oxygenates have seen little use in the gasoline pool in Canada, they have not received much attention from the tax legislators. In the Atlantic Provinces, oxygenates appear to be covered under the gasoline tax act. These acts generally define gasoline as any liquid fuel which is used in internal combustion engines and thus tax fuels such as methanol at the same rate as gasoline. This may not have been the intent of the drafters of this legislation, some of which dates back to the 1960's, but it does appear that it would be interpreted so that oxygenates would be subject to the same taxes on a volume basis as gasoline. The wording of the legislation varies from province to

province, but in general it indicates that all liquid fuels used in internal combustion engines, regardless of their composition, are subject to the gasoline tax.

Currently Quebec has the highest petroleum product taxes in Canada at 30 percent ad valorem rate. Propane is taxed on a volumetric basis at about 58 percent of the average gasoline rate, clearly a preferred rate, and CNG is excluded from the list of fuels subject to road taxes. Promotion of CNG use through non-tax treatment is clearly occuring. Taxation of oxygenated blend components will probably be the same as gasoline on a volumetric basis as they fall within the gasoline definition under the tax legislation. Isobutanol may be excluded from this category because its specific gravity is higher than the upper limit normally used in the definition of gasoline.

The province of Ontario applies a tax on petroleum products which is slightly below the Canadian average,* and has taken a very supportive role with regard to alternative fuels. It does not tax propane or compressed natural gas (CNG) and gives tax exemption status to specified oxygenate components of oxygenated gasoline blends. Currently ethanol, methanol, tertiary butyl alcohol and isopropanol are exempted from motive fuel taxes. As well, isobutanol is being considered for the exemption list. Tax concessions to support alternate fuel use in Ontario have cost

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* Of those provinces which levy a motive fuel tax.

the province considerable tax revenues commensurate with the province's success in the area. There is no indication, however, that a termination of this preferred treatment is being considered.

Manitoba taxes petroleum products as an important revenue source but does give consideration to differential tax treatment to serve specified ends. For example unleaded gasolines are taxed at a lower amount per litre on the basis that they are less polluting than leaded gasolines. For the same reason propane is granted favourable tax treatment equal to about half of the gasoline rate on a volumetric basis. Manitoba does not have CNG tax legislation in place but the subject is being considered. The adopted tax rate will probably reflect CNG's potentially low-polluting combustion qualities.

Manitoba has had oxygenated blends in the market for several years. To foster the marketing of ethanol from a distillery in Minnedosa, Manitoba, the province grants a 2.5¢ per liter tax exemption for gasohol blends containing at least 10 percent "acceptable"* ethanol.

This tax on the entire blend works out to 25¢ per liter of ethanol used. The size of this subsidy has been reduced in steps from a maximum of 6.4 cents per liter level as the province has concerns about revenues forgone.

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* A description of ethanol that would be acceptable appear in Appendix II under Manitoba

The special tax treatment accorded to ethanol blends is unlikely to be extended to other oxygenate components. In fact, the Manitoba Department of Finance does not feel that methanol blended fuels require a tax incentive. Rather, there is a belief that consideration should be given to a tax disincentive for methanol blend fuels to help offset the added cost of strict controls that may be required to ensure that improperly blended or stored methanol blends are not harmful to the motoring public.

It has also been suggested that a federal government lead supporting oxygenate blends in the form of favoured excise tax treatment would be required before Manitoba would consider granting special tax treatment to oxygenates.

All motor vehicle fuels are untaxed in Saskatchewan and Alberta; therefore, differential tax encouragement of alternatives is impossible without resorting to direct subsidies, which may be politically unacceptable.

British Columbia's tax treatment of petroleum products is in line with several other provinces. B.C. is supportive of propane and CNG in that neither fuel is subject to fuel taxes. Oxygenated blends fall under the definition for gasoline and are taxed on the same volumetric basis as is gasoline.

The Northwest Territories (NWT) have road taxes for petroleum products, which are comparable to those in the provinces. They do not

tax propane. Tax treatment of CNG in the NWT is as yet not defined. Oxygenate blends are not specifically addressed in the legislation but blend components likely would be treated in the same manner as gasoline and taxed accordingly.

The Yukon's per litre tax rate on petroleum products is about half of the average rate levied in the provines. Propane is not taxed. There is no specific provision referring to either NG or oxygenate blends; however, the definition of "fuel oil" in the legislation could easily include both. Nevertheless, CNG is not likely to be a factor in the forseeable future. If oxygenated blends are introduced, they would probably be taxed at a similar rate to gasoline.

APPENDIX I

TABLE 1

PRICES

INTERNATIONAL PRODUCT PRICES - REGULAR LEADED GASOLINE

(TOTAL TAXES INCLUDED)

| PERIOD | UNITED STATES | | FRANCE | | WEST GERMANY | | CANADA | |
|---|---|---|---|---|---|---|---|---|
| | (CANADIAN CURRENCY) | | | | CENTS PER LITRE | | | |
| | | TAX | | TAX | | TAX | | TAX |
| 1974 | .. | .. | .. | .. | .. | .. | 13.9 | .. |
| 1975 | .. | .. | .. | .. | .. | .. | 15.9 | .. |
| 1976 | 15.4 | 3.1 | .. | .. | .. | .. | 17.7 | .. |
| 1977 | 17.5 | 3.4 | 46.8 | 28.1 | 41.7 | 25.7 | 19.2 | 7.1 |
| 1978 | 18.9 | 3.9 | 56.5 | 34.7 | 51.8 | 31.9 | 20.0 | 6.9 |
| 1979 | 26.5 | 4.0 | 74.1 | 48.5 | 63.9 | 36.4 | 21.9 | 6.2 |
| 1980 | 36.8 | 4.3 | 88.7 | 51.3 | 73.5 | 38.0 | 25.9 | 6.8 |
| 1981 | 41.5 | 4.4 | 82.1 | 43.0 | 74.2 | 34.6 | 35.3 | 8.9 |
| 1982 | 40.0 | 4.8 | 77.0 | 40.9 | 67.1 | 33.7 | 42.9 | 11.5 |
| 1983 | 37.7 | 6.5 | 73.3 | 39.5 | 64.3 | 32.0 | 45.9 | 12.5 |
| 1984 | 38.6 | 7.5 | 72.5 | 40.1 | 61.3 | 30.4 | 48.2 | 12.2 |
| 1985 | 40.1 | 7.9 | 82.4 | 48.3 | 64.0 | 34.2 | 51.0 | 13.0 |

SOURCE: EMR

APPENDIX I

TABLE 2
FUEL DUTIES

| PRODUCT | IMPORT DUTY INTO CANADA | IMPORT DUTY INTO USA FROM CANADA | ITEM # |
|---|---|---|---|
| Gasoline (Gasoline Products of .8236 Specific Gravity or Lighter) | duty free | 1.25¢/US/US gal | 475.25 |
| Methanol (MEOH) | | | |
| (i) For direct use as fuel | 10 percent | duty free | 427.96 |
| (ii) other uses | 10 percent | 18.4 percent | 427.97 |
| Tertiary Butyl Alcohol (TBA) | 12.8 percent | 8.8 percent | 427.74 |
| Isopropyl Alcohol (IPA) | 12.8 percent | 14 percent | 428.06 |
| Isobutyl Alcohol (IBA) | 12.8 percent | 8.8 percent | 417.75 (20) |
| Ethyl Alcohol (ETOH) (For industrial use not beverage) | 4.4¢/L | 60¢/US/US gal. | 901.50* |
| Methyl Tertiary Butyl Ether (MTBE) | 12.8 percent | 6.5 percent | 428.96 |
| Propane (in containers for heating, lighting purposes) | 12.5 percent | duty free | 475.15 |
| Natural Gas | | duty free | 475.15 |
| (i) by pipeline | duty free | | |
| (ii) otherwise | 11.1 percent | | |

* Tariff Termination date Dec. 31, 1992

U.S. Tariff information, U.S. customs office phone 518-298-8311

Canada Customs duty information 613-993-0534

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APPENDIX I
TABLE 3

FUEL TAX RATES IN CENTS PER LITRE BY PROVINCE

| Fuel Type | | NFLD | P.E.I. | N.S. | N.B. | P.Q. | ONT | MAN | SASK | ALTA | B.C. | N.W.T. | YUKON |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Regular leaded gasoline | ON HWY | 11.7 | 10.3 | 10.1 | 9.8 | 13.65 | 8.3 | 8.9 | | | 8.64 | 8.4 | 4.2 |
| | OFF HWY | N.A. | N.A. | N.A. | N.A. | 13.65 | N.A. | | | | 3.02[7] | | N.A. |
| Regular unleaded gasoline | ON HWY | 11.7 | 10.3 | 10.1 | 10.2 | 14.40 | 8.3 | 8.0 | | | 8.64 | 8.4 | 4.2 |
| | OFF HWY | N.A. | N.A. | N.A. | N.A. | 13.65 | N.A. | | | | 3.02 | | N.A. |
| Premium leaded gasoline | ON HWY | 11.7 | 10.3 | 10.1 | 10.5 | 14.70 | 8.3 | 8.9 | | | 8.64 | 8.4 | 4.2 |
| | OFF HWY | N.A. | N.A. | N.A. | N.A. | 13.65 | N.A. | | | | 3.02 | | N.A. |
| Premium unleaded gasoline | ON HWY | 11.7 | 10.3 | 10.1 | 10.5 | 14.70 | 8.3 | 8.0 | | | 8.64 | 8.4 | 4.2 |
| | OFF HWY | N.A. | N.A. | N.A. | N.A. | 13.65 | N.A. | | | | 3.02 | | N.A. |
| Gasoline Unlicensed Vehicles | | | | | | | N.A. | | | | | | |
| Diesel | ON HWY | 13.9 | 11.7 | 10.0 | 10.0 | 12.45 | 9.9 | 9.2 | | | 9.08 | 7.1[8] | 5.2 |
| Diesel | OFF HWY | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | 7.0 | | | 3.02 | 5.0[9] | N.A. |
| Kerosene 2K | | | | | | | 9.9 | 9.2 | | | | | |
| Kerosene Marked | | | | | | | N.A. | 7.0 | | | | | |
| Propane for Vehicles | ON HWY | 11.7 | 10.3 | 10.1 | 4.8 | 8.25 | N.A. | 4.8 | | | N.A. | N.A. | N.A. |
| Propane for Vehicles | OFF HWY | N.A. | N.A. | N.A. | N.A. | 8.25 | N.A. | 4.0[5] | | | N.A. | N.A. | N.A. |
| Locomotive | | N.A. | 11.7 | N.A. | 4.3 | 8%[3] | 3.1 | 9.2 | 13.6[10] | | 3.02 | 9.0 | N.A. |
| Marine | | 1.0 | N.A.[1] | 1.2[2] | N.A. | N.A. | N.A. | | | | 3.02 | N.A. | N.A. |
| Marine - diesel (marked or Bunker) | | | | | | | | 7.0 | | | 1.44 | | |
| Aviation | | 0.7 | 0.0 | 1.0 | 1.9 | 8%[3 4] | 1.88 | 4.8 | 2.9 | 0.7[6] | 3.02 | 1.0 | 0.7 |
| Gasohol leaded | | - | - | - | - | - | - | 6.4 | - | - | - | - | - |
| Gasohol unleaded | | - | - | - | - | - | - | 5.5 | - | - | - | - | |

[1]Gasoline or diesel used in vessels in coastal waters is taxable at on highway rates.
[2]Marine diesel delivered through tanker truck or pipeline on Cape Breton Island or the town of Malgrave is exempt from tax.
[3]Eight percent is charged on the selling price.
[4]Aviation Turbine Fuel used on international flights is exempt, provided that all persons aboard are going to an international destination.
[5]The 4 cent rate is on a Kg of propane.
[6]The 0.7¢ per litre rate applies for planes over 34,000 Kg.
[7]Off Highway gasoline and diesel used in B.C. must be marketed to receive the preferred tax rates.
[8]In the NWT on highway diesel for non motive purposes has a preferred tax rate of 3.4 cents per litre.
[9] This rate applies in spreclified zones.
[10]Source for Sask. fuel rates is - Fuel, Tobacco and Liquor,
Section of Revenue and Financial Services,
Saskatchewan Department of Finance 306-787-4600

APPENDIX I
TABLE 4

REVENUE DISTRIBUTION BREAKDOWN
REGULAR LEADED GASOLINE
DECEMBER 1985
c/Litre

| | NFLD | P.E.I. | N.S. | N.B. | P.Q. | ONT | MAN | SASK | ALTA | B.C. |
|---|---|---|---|---|---|---|---|---|---|---|
| **FEDERAL SHARE** | | | | | | | | | | |
| Sales Tax | 3.26 | 3.26 | 3.26 | 3.26 | 3.26 | 3.26 | 3.26 | 3.26 | 3.26 | 3.26 |
| Excise Tax | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 |
| Wellhead Share (2) | | | | | 1.37 | 2.84 | 2.84 | 2.84 | 2.84 | 2.84 |
| | 6.76 | 6.76 | 6.76 | 8.13 | 9.60 | 9.60 | 9.60 | 9.60 | 9.60 | 9.60 |
| **PROVINCIAL SHARE** | | | | | | | | | | |
| Wellhead share | | | | | 2.44 | 5.08 | 5.08 | 5.08 | 5.08 | 5.08 |
| Sales Tax | 11.10 | 10.10 | 10.10 | 9.70 | 12.90 | 8.00 | 8.90 | .00 | .00 | 9.18 |
| | 11.10 | 10.10 | 10.10 | 9.70 | 15.34 | 13.08 | 13.98 | 5.08 | 5.08 | 14.26 |
| **INDUSTRY SHARE** | | | | | | | | | | |
| Retail | 4.30 | 4.10 | 4.20 | 4.20 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| Refining and Marketing (1) | 14.38 | 12.28 | 11.78 | 13.88 | 10.64 | 8.52 | 11.72 | 10.77 | 13.16 | 12.42 |
| Crude Oil Transportation (4) | | | | | .58 | 1.11 | .51 | .46 | .37 | .83 |
| Wellhead Share (2) | | | | | 5.10 | 10.63 | 10.63 | 10.63 | 10.63 | 10.63 |
| Upstream Operations (2) | | | | | 2.28 | 4.76 | 4.76 | 4.76 | 4.76 | 4.76 |
| Imported Crude (3) | 25.26 | 25.26 | 25.26 | 25.26 | 13.13 | | | | | |
| | 43.94 | 41.64 | 41.24 | 43.34 | 34.74 | 28.01 | 30.61 | 29.61 | 31.91 | 31.63 |
| **PUMP PRICES** | 61.80 | 58.50 | 58.50 | 59.80 | 58.20 | 50.70 | 54.20 | 44.30 | 46.60 | 55.50 |

NOTES: (1) May include income taxes
(2) Based on average Alberta wellhead price for the month (LIFO)
(3) Reflects industry average import cost into eastern Canada for the Month
(4) reflects pipeline tariffs and includes an estimated gathering and trucking fee of 0.37G/L

SOURCE: EMR, Petroleum Marketing
Oil Pricing and Market Analysis Division
(613) 995-2500

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TABLE 5

NATURAL GAS PRICES

| | ($/Mcf) | ($/GJ) |
|---|---|---|
| **British Columbia (November)** | | |
| Average field price | 1.97 | 1.84 |
| Price adjustment | 0.12 | 0.11 |
| **Wholesale price** | **2.80** | **2.61** |
| **Alberta (November)** | | |
| Average field price | 2.65 | 2.47 |
| Average cost-of service | 0.39 | 0.36 |
| Border flowback | 0.03 | 0.03 |
| **Border price** | **3.00** | **2.80** |
| Provincial support price (65% border) | 1.95 | 1.83 |
| Direct sale contract price | 2.10-2.35 | 1.96-2.19 |
| **Eastern Zone (November)** | | |
| Alberta border price | 3.02 | 2.80 |
| Pipeline tariff, Alberta-Toronto | 1.18 | 1.10 |
| Tariff subsidy | 0.12 | 0.11 |
| Federal Natural Gas Tax | - | - |
| **Wholesale price** | **4.07** | **3.79** |

* Units are converted using the factor 1.072927 GJ to 1 Mcf.

NATURAL GAS COSTS

| | Firm Service Current cost | |
|---|---|---|
| | ($/gigajoule) | ($/Mcf) |
| Montreal. . . . . | 4.86 | 5.12 |
| Toronto . . . . . | 4.58 | 4.84 |
| Winnipeg. . . . . | 4.21 | 4.44 |
| Edmonton. . . . . | 3.36 | 3.54 |
| Vancouver . . . . . | 4.34 | 4.58 |

* Costs are calculated using rates published by the gas utilities, based on monthly consumption of 4,000 gigajoules (3,792.85 Mcf).

Source Feb. 86
Energy Pricing News

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APPENDIX I

TABLE 6

Government Incentives to use of Alternative Fuels

Federal Government Support

- Natural Gas Fueling Contribution program.
  The program provides a taxable grant of up to $50,000 for qualifying applicants to build CNG service stations
- Program ends March 31, 1987

- Natural Gas Vehicle Conversion Program
- The program provides a taxable grant of $500 for each vehicle converted to CNG or for each new vehicle equipped for CNG.
- program expires March 31, 1987

- No Federal Sales or Excise Taxes on CNG

- No federal excise tax and a substantially reduced sales tax on propane used as a motor vehicle fuel.

APPENDIX I

TABLE 6

Provincial Government Support

Newfoundland, Nova Scotia and Prince Edward Island currently do not offer road or sales tax remission to encourage the use of alternative fuels.

New Brunswick offers preferred road tax rates on propane equal to about half of the tax rate applicable to gasoline or a volumetric basis

Quebec does not tax CNG used as a motor vehicle fuel and a propane road tax rate of about 60 percent of the gasoline tax rate on a volumetric basis.

Ontario has been most supportive of alternative fuel use in that road taxes are not applied to CNG or propane. As well, Ontario does not collect provincial sales taxes on new and used vehicles converted to use CNG or propane within 30 days of purchase. Provincial Sales tax is also waived on the cost of the conversion for vehicles converted after 30 days of ownership. Specified oxygenated blends also receive road tax exemption on the oxygenated components.

Manitoba currently offers preferred tax rates on propane equal to about 55 percent of the gasoline tax rate on a volumetric basis. Also gasohol has reduced sales tax.

APPENDIX I

TABLE 6

Saskatchewan and Alberta have no road taxes at all.

British Columbia does give support to alternative fuel use, The government has a $200 provincial grant, available for conversion of vehicles to CNG use. In addition to conversion kits used in both CNG and propane conversions are not subject to provincial sales tax. British Columbia also does not apply road tax to propane and CNG used as motor vehicles fuels.

## APPENDIX II

This section contains portions of provincial legislation which define or pertain to motor vehicle fuels subject to road taxes.

Newfoundland:
Gasoline Tax Act 1978
Section 2

(b) "gasoline" includes every liquid or combination of liquids, by or under whatever name it is known or sold, that is capable of being used for the purpose of generating power in an internal combustion engine whether or not the liquid or combination or any part thereof is produced, derived or recovered from petroleum, natural gas, shale or coal;

Nova Scotia:
Gasoline and Diesel Oil Tax Act 1967
Section 1

(a) "gasoline" means the product distilled from petroleum which by combustion develops the power required for operating internal combustion engines, and also means every other liquid product which fulfills the same purpose by the same means and for the same end except diesel oil, and includes any other product determined by the Minister to be gasoline;

APPENDIX II (continued)

(d) "diesel oil" means the products distilled from petroleum which are capable of developing the power required for operating internal combustion engines and which are commonly known as diesel oil, semi-diesel oil or fuel oil and includes any other products determined by the Minister to be diesel oil;

Prince Edward Island:
Gasoline and Diesel Oil Tax Act
Section 2

(a) gasoline - "gasoline" means the product distilled from petroleum which by combustion develops the power required for operating internal combustion engines, and also means every other liquid product that fulfills the same purpose by the same means and for the same end, except diesel oil, and includes aviation fuel and any other product determined by Minister to be gasoline;

(aa) aviation fuel - "aviation fuel" means any gas or liquid that is sold to be used or is used to create power to propel an aircraft and includes any product that is designated to be aviation fuel by the regulations;

(d) Diesel oil - "diesel oil" means the products distilled from petroleum that are capable of developing the power required for operating internal combustion engines and that are commonly known as diesel oil, semi-diesel oil or fuel oil and includes any other products determined by the Minister to be diesel oil;

APPENDIX II (continued)

New Brunswick
Gasoline and Motor Fuel Tax Act
Section 1

"gasoline" means any product of petroleum, by whatever name known or sold, containing any derivative of petroleum, natural gas or coal, and having a specific gravity of .8017 or under at a temperature of 60 degrees Fahrenheit, and includes:

(a) benzol and any benzol mixture.

(b) any substance or liquid in the nature of gasoline or benzol or a benzol mixture.

(i) that has a specific gravity in excess of .8017 at a temperature of 60 degrees Fahrenheit, and that the Lieutenant Governor in Council declares is being used for fuel for motor vehicles, or

(ii) that, regardless of its specific gravity the Lieutenant-Governer in Council declares to be gasoline within the meaning of this act,

but does not include natural gas or manufactured gas that is used as a fuel, bunker fuel, crude oil or propane;

APPENDIX II (continued)

"aviation fuel" means any gas or liquid that is sold to be used or is used to create power to propel an aircraft and includes any product that is designated to be aviation fuel by the regulations;

"motive fuel" means any gas fuel or liquid fuel that is not gasoline and that can be used for moving or operating any internal combustion engine or machine, or for heating and without restricting the generality of the foregoing includes kerosene, propane, crude oil, distillate and other motor fuel, but does not include natural gas or manufactured gas that is used as a fuel;

Quebec
Fuel Tax Act
Section 1

(b) "fuel": gasoline or fuel oil;

(e) "gasoline": natural gas and any derivative of petroleum, natural gas or coal having a specific gravity of 0.8017 or less at a temperature of 15.556 degrees Celsius or that is declared by regulation to be gasoline, except natural gas or manufactured gas used as a fuel and delivered to the purchaser by means of a pipe distribution system;

APPENDIX II (continued)

Quebec (Cont'd)

(g) "fuel oil": any gas or liquid fuel that is not gasoline within the meaning of this act that can be used for heating or operating any internal combustion engine, except natural gas or manufactured gas used as fuel and delivered to the purchaser by means of a pipe distribution system;

Sec. 2. Every person who in any way acquires in Quebec one of the categories of fuel mentioned in section 4 for purposes other than resale shall pay to the Minister, on each litre, a tax equal to 30% of the average retail price per litre of that fuel. Such tax is, however, reduced in the proportion determined by regulation when the fuel is delivered to the purchaser by a person in the manner and in the border regions of Quebec prescribed by regulation.

However, in the case of the acquisition of gasoline to be used for supplying aircraft engines or of coloured fuel oil for supplying railroad locomotive engines, the tax shall be 8 per cent of the sales price to the consumer. (S. 2, c. T-1).

Sec. 4. The categories of fuels contemplated in the first paragraph of section 2 are:

APPENDIX II (continued)

Quebec (Cont'd)

(a) regular leaded gasoline;

(b) high-octane leaded gasoline, comprising all categories of leaded gasoline other than regular leaded gasoline;

(c) regular unleaded gasoline;

(d) high-octane unleaded gasoline;

(e) fuel oil;

(f) propane gas.

When benzol, a mixture of benzol with another substance, butane gas or liquefied petroleum gas is sold as gasoline, it is deemed to be regular leaded gasoline (S. 4, c. T-1).

Ontario
Gasoline Tax Act
Section 1

(b) "aviation fuel" means any gas or liquid that is sold to be used or is used to create power in an aircraft and any product that is designated to be aviation fuel by the regulations;

(d) "gasoline" means any gas or liquid, other than those described in subclause (iv), that may be used for the purpose of generating power by means of internal combustion and includes any substance, other than those described in subclause (iv), that is added thereto, but does not include the following products,

APPENDIX II (continued)

Ontario (continued)

(i) aviation fuel, except when used or intended to be used to generate power by means of internal combustion in a vehicle other than an aircraft,

(ii) the products commonly known as diesel fuel, fuel oil, coal oil or kerosene, except when any such product is mixed or combined with gasoline,

(iii) products excluded from this Act by the regulations, except when any such product is mixed or combined with gasoline,

(iv) ethyl alcohol, methyl alcohol, natural gas, manufactured gas, tertiary butyl alcohol, isopropyl alcohol or any product commonly known as liquefied petroleum gas;

Constitutional Provisions

Constitution Act, 1867, [Editorial Comment:] Sec. 92(2) of the Constitution Act, 1867 empowers the provinces to make laws in relation to "direct taxation within the Province in order to the Raising of a Revenue for Provincial Purposes". In deciding on the constitutionality of provincial taxing statutes in this respect, various court decisions in

APPENDIX II (continued)

the past laid stress on the intent of the legislation as well as on its form. The tax, to remain direct, must be imposed on the purchaser without his being able to pass it on to another person. For this reason the Gasoline Tax Act and the Fuel Tax Act, 1981 impose the taxes on the purchaser and specify that they are applicable where they are for the purchaser's own use. In fact, however, the collecting of the taxes is done by the vendor or one of the series of vendors as agents of the Crown, and the taxes are collected and remitted by the manufacturers.

Manitoba
The Gasoline Tax Act
Section 2

(a) "aircraft gasoline" - "aircraft gasoline" means any fuel used for the operation of an aircraft or in the testing of the engine of an aircraft on the ground;

(c.1) "denatured alcohol" - "denatured alcohol" means a mixture of

(i) alcohol derived from biomass materials, and

(ii) soluble by-products of fermentation, containing not more than 1% of water; (1980, c. 60, s. 5.)

APPENDIX II (continued)

(e.1) "gasohol". - "gasohol" means a mixture of denatured alcohol manufactured in Canada and gasoline, in which the denatured alcohol content is not less than 10% of the total volume of the mixture; (1980, c. 69 s. 6.)

(f) "gasoline" - "gasoline" means any product of petroleum, by whatever name known or sold, containing any derivative of petroleum, natural gas, or coal, and having a density of not more than .8013 kilograms per litre at 15 degrees Celsius at a pressure of 101.325 kilopascals, and includes,

(i) benzol and any benzol mixture,

(ii) any substance or liquid in the nature of gasoline or benzol or a benzol mixture,

(A) that has a density in excess of .8013 kilograms per litre at 15 degrees Celsius at a pressure of 101.325 kilopascals; and that the Lieutenant Governor in Council declares is being used for fuel for motor vehicles or

(B) that, regardless of its density, the Lieutenant Governor in Council declares to be gasoline within the meaning of this Act.

APPENDIX II (continued)

Saskatchewan
The Fuel Tax Act
Section 2

(a) "aviation fuel" means fuel that is liquid hydrocarbon substance or that is derived from a liquid hydrocarbon substance and that is used to operate an aircraft;

(f) "locomotive fuel" means fuel that is a liquid hydrocarbon substance or that is derived from a liquid hydrocarbon substance and that is used by a railway company to operate a locomotive;

(j) "taxable fuel" means aviation fuel or locomitive fuel;

British Columbia
Gasoline Tax Act
Section 1

Sec. 1 "aviation fuel" means gasoline to be used in an aircraft as fuel for the engine; [s. 1, c. 152].
(The definition of aviation fuel was added by 1985, c. 26, s. 1, effective March 15, 1985.)

Sec. 1 "gasoline" means petroleum, national gas and compressed naturel gas, and the product derived from petroleum or natural gas commonly known or sold as gasoline, and all other products, by whatever name known or

APPENDIX II (continued)

sold, containing any derivative of coal, petroleum or natural gas and produced, prepared, compounded, acquired or used or which may be used for generating power by means of an internal combustion engine;
[s. 1, c. 152].
(The definition of gasoline was amended by 1982, c. 13, s. 1, effective April 6, 1982.)

Motor Fuel Use Tax Act

Section 1 "motive fuel" means diesel fuel acquired or used for propelling a motor vehicle, and any other fuel included in this definition by regulation of the Lieutenant Governor in Council, but does not include motive fuel that is coloured purple and is used in accordance with the Gasoline (Coloured) Tax Act;

Yukon

Fuel Oil Tax Ordinance

Section 2. "fuel oil" means the liquid derived from petroleum or natural gas and any other liquid by whatever name known or sold, containing any derivative of coal, petroleum or natural gas, and any other fuel as may be included in this definition by regulation of the Commissioner;

Northwest Territories

Petroleum Products Tax Act

Section 2. "petroleum products" includes all liquid products obtained whether by distillation, condensation, absorption or any other process, from petroleum, natural gas, casing head or natural gasoline, benzol benzine, coal, coal tar, oil shales, kerosene, gas, oil, and any combination of any such products but does not include propane, butane or naphta; (1982 (1st), c. 4, s.2.)

APPENDIX III

Information Sources and Contacts:

Income Tax Rates and Industry Taxation

Both federal and provincial rates including surtax charges are available from the Canadian Tax Foundation in Toronto.

Contact David Perry (416) 863-9784

George A. Reinecke
Director
Petroleum Monitoring
Agency Canada
(613) 996-4444

Royalty Information on Oil and Gas Production

Petroleum and Gas Tax
i) Director W. Toms
Financial and Fiscal Analysis Branch
(613) 995-9351

ii) Director M. Musgrove
Gas Exports and NGL's Division
Natural Gas Branch
(613) 995-2500

Federal Source (All Provinces)
W. Wouters
Director
Industry Analysis Division
Fiscal and Financial Analysis Branch
Energy, Mines and Resources
(613) 995-9351

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APPENDIX III (continued)

Industry Source (All Provinces) Except Alberta
Tom Lester
Rick Hillary
Petroleum Resources Communication Foundation
(403) 264-6064

British Columbia
Ken Hyndmarch or Mr. Bruce Garrison
B.C. Department of Energy, Mines and Petroleum Resources
(604) 387-5993

Saskatchewan
Dale Fletcher and Bruce Lerner
Saskatchewan Department of Energy and Mines
(306) 787-2517

Provincial Motor Fuel Tax Information

Federal Source all Provinces and Territories with computerized updates available.

Intergovernmental Taxation Center
(819) 997-5240
Contact Kelsey Blachford

Industry Source
Petroleum Resources Communication Fouocation
(403) 264-6064

Newfoundland
John Soaper
Gasoline Tax Section
Department of Finance
(709) 576-2952

Nova Scotia
R.S. Hubley
Manager
Gasoline and Diesel Oil Tax Division
(902) 424-6714

New Brunswick
Bill Staples
Fuel, Tabacco and
Amusement Tax Division
Department of Finance
(506) 453-2255

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APPENDIX III (continued)

Quebec
Andre Legault
Fiscal Policy Branch
Department of Finance
(418) 643-3340

Ontario
Mr. Hyder
Motor Fuels and Tobacco Tax Division
Ministry of Revenue
(416) 433-6336

Manitoba
Mr. Puchniak
Director
Mining and use Taxes Branch
Department of Finance
(204) 945-3288

Saskatchewan
John Ling
Fuel, Tobacco and Liquor Tax Section
Revenue Financial Services
(306) 787-4600

British Columbia
Mr. Alf Marley
B.C. Department of Finance
(604) 387-5321

Federal Sales Taxes and Excise Taxes

Department of Finance
Revenue Canada
Taxes pertaining to propane and CNG

Mr. Bill Gray
Tax Interpretation Excise
Customs and Excise
(613) 598-2642

Revenue Shares (Industry and Governments)

Petroleum Resources
Communication Foundation
(403) 264-6064

Energy Mines and Resources
Petroleum Marketing
Oil Pricing and Market Analysis Division
(613) 995-2500
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3. Canada Department of Finance' Budget Papers - Securing Economic Renewal, May 1985.

4. New Frontier energy Policy, EMR Information Bulletin 85/160 (a) (Ottawa: November 1985).

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7. Bureau of Management Consulting, The Possible Use of Methanol Blends for Canada's Road Vehicles, A Policy Oriented Analysis, September 1984, pp. 48-52.

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